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ABSTRACT

A parallel was recognized between a biblical view of optimal human functioning and five correlates to self-actualization (moral development, positive attitude toward death, positive interpersonal relationships, low level of anxiety, religious participation). A review of the relevant empirical literature yielded mixed conclusions. The studies which examined moral development offered little evidence of a relationship between self-actualization and moral behavior. Studies reviewed on fear of death suggested a significant correlation between a positive attitude toward death and self-actualization. While a positive relationship with others was found to be significantly related to self-actualization, there were only two studies available which addressed the issue, thereby limiting the confidence which can be placed in the results. Mixed results were found in the studies examining self-actualization and anxiety with findings supporting either the value of anxiety in personal development or its incompatibility with actualization. Finally, studies examining the relationship between religious participation and self-actualization found that college students who attended church infrequently tended to have higher levels of self-actualization. Future research might take concepts known to be biblical and address their relationship to self-actualization.
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AN EXAMINATION OF EMPIRICAL CORRELATES
TO SELF-ACTUALIZATION
AND THEIR RELATIONSHIP TO BIBLICAL CONCEPTS
OF OPTIMAL HUMAN FUNCTIONING

A Doctoral Research Paper
Presented to
the Faculty of the Rosemead School of Psychology
Biola University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Psychology

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AND THEIR RELATIONSHIP TO BIBLICAL CONCEPTS OF
OPTIMAL HUMAN FUNCTIONING

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ABSTRACT

AN EXAMINATION OF EMPIRICAL CORRELATES
TO SELF-ACTUALIZATION
AND THEIR RELATIONSHIP TO BIBLICAL CONCEPTS
OF OPTIMAL HUMAN FUNCTIONING

John Lowrey Cox

A parallel was recognised between five correlates to self-actualization and a biblical view of optimal human functioning. The relationship between biblical and psychological views of healthy human functioning was examined as it is represented in the relationship of self-actualization to the five correlates.

Results yielded mixed conclusions. Self-actualization was found to correlate significantly with a positive attitude toward death and positive interpersonal relationships. A mixed relationship was found with anxiety levels and religious participation. An insignificant relationship was found between self-actualization and moral integrity.

An Examination of Empirical Correlates
to Self-Actualization
and their Relationship to Biblical Concepts
of Optimal Human Functioning

Within any discipline which is involved in the study of man, the issue of healthy or optimal functioning is addressed. This is true of both psychology and theology. Shultz (1977) delineates "growth psychology" or "health psychology" as spheres within the field which are "not concerned with the sick side of human nature . . . but with the healthy side (psychological 'wellness')" (p. iii). Jourard (1974) terms this dimension the "healthy personality" and describes it as "ways of being which surpass the average" (p. 1). In theology careful examination is made of biblical teaching in order to determine its injunctions concerning the optimal functioning of man. The primary purpose of this paper is to examine the empirical research which has addressed the relationship between psychological and biblical concepts of healthy or optimal functioning where optimal functioning is understood to be a positive quality beyond the absence of pathology.

In a theoretical study, Carter and Mohline (1976) endeavor to determine a common intrinsic structure which is inherent to both psychology and theology. In so doing they delineate several areas which reflect commonalities of focus between the two fields, one of which addresses the nature of man and includes concepts of health or wholeness. Carter and Mohline also assert that not only are there

wholeness. Carter and Mohline also assert that not only are there parallels of focus but that there are also overlaps in the content of psychology and theology, stating that the ". . . basic principles and content of psychology are integratable into their equivalent theological area." Addressing Christian and psychological views of maturity Carter (1974) asserts that though different terms are used and often different contents, common processes often operate in both psychology and theology.

The present review will argue that if such parallels exist theoretically, support for them will be evident in the psychological research. The literature will be examined in an attempt to demonstrate the degree to which there is an empirical relationship between optimal psychological functioning, defined as self-actualization, and five of its correlates: moral development, positive attitude toward death, positive interpersonal relationships, low level of anxiety, and religious participation, which are conceptualized in this paper as representing parallels to biblical aspects of optimal functioning. In doing so it will seek to understand the nature of the aforementioned theoretical correspondence between psychological and Christian understandings of optimal human functioning as it is demonstrated through the relationship of self-actualization and the five correlates. To this end, the research literature from 1970 to the present which addresses the relationship of self-actualization to the five correlates which are viewed as biblically compatible was reviewed

the movement of an organism in the direction of its most full potential, including differentiation, maturity, and self-regulation. Maslow (1970) conceptualizes it as an upward process through the hierarchy of needs. However, Maslow also understands self-actualization to be a developmental position with the following characteristics: the self-actualized individual possesses an efficient perception of reality; he/she is accepting of self and others; is spontaneous in his/her behavior and inner life; is problem centered; is autonomous, propelled by the motivation of his/her inner organism rather than the social environment; in his/her interpersonal relationships he/she has adequate differentiation between self and others; he/she can discriminate between good and bad, is creative, and experiences what Maslow calls peak experiences.

The vast majority of empirical research on self-actualization has used the Personal Orientation Inventory (POI) (Shostrom, 1963). With the exceptions alluded to above, therefore, this paper concentrates its analysis of self-actualization to studies using the POI. In developing the POI, Shostrom attempted to operationalize the construct of self-actualization as it is understood by a range of theorists, including, Maslow, Rogers, Perls, May-Angel-Ellenberger, Fromm, Horney, Reisman, Watts, and Ellis (Shostrom, 1964). The POI consists of 150 pairs of forced choice items, with two major scales: Inner-directedness (Id) and Time Competence (Tc), which attempt to cover what Shostrom assessed

were the major aspects of self-actualization, the ability to live autonomously as a self-directed person and the ability to live in the here and now. Within the two main scales are ten subscales measuring different dimensions of self-actualization. Shostrom is unclear in the POI manual as to the relationship of these subscales to the major scales of the POI or to self-actualization as a whole. The subscales include Self-Actualizing Value (SaV), Existentiality (E), Feeling Reactivity (Fr), Spontaneity (Sp), Self-Regard (Sr), Self-Acceptance (Sa), Nature of Man (Nm), Synergy (Sy), Acceptance of Aggression (Aa), and Capacity for Intimate Contact (Ci). Since the POI is the major instrument used in the self-actualization research, a brief review of the validity and reliability of the POI is included in an Appendix.

Biblical Concepts of Optimal Human Functioning

The Bible prescribes guidelines for a process of whole human development, encouraging a life of moral integrity based in the inner man, love and commitment in interpersonal relationships both to others and God, hope in the presence of physical death, a reliance on God which overcomes fear, and a committed, heartfelt participation in religious worship.

In the literature available on self-actualization, several studies examine its relationship to concepts which parallel the above mentioned biblical notions: moral integrity, attitude toward death, quality of interpersonal relationships, pathological anxiety,

and religious participation in public worship. Though these psychological constructs do not exactly correspond to the biblical notions, they represent adequate operationalizations of them. These concepts are now examined individually in greater detail.

Several studies look at the relationship between self-actualization and the development of an internal moral code. In the psychological research, such a quality involves basing ones moral decisions in a personal standard of ethics. This understanding of morality corresponds with a biblical notion of righteousness and good behavior as springing from values which lie within the person rather than from external pressure or motives which are incongruent with the individual's internal disposition.

Another dimension which has been related to self-actualization is one's attitude toward death. Much of the Existential and Humanistically based psychological literature regards the personal assimilation of ones impending death to be a vital aspect of actualization. It is also a major value in a biblical anthropology, where the Bible teaches that death need not be feared by the believer because of the availability of life with God after death.

A third aspect of mental health that is examined is the status of interpersonal relationships. The Bible holds loving relationships with others to be a vital part of the Christian faith. The psychological research examines interpersonal relationships and attempts to correlate levels of interpersonal involvement with

self-actualization.

Fourthly, anxiety is seen in the Bible as a less than optimal characteristic, for man is encouraged to "be anxious for nothing" and to trust God in his/her life (Phil. 4:6, this and all subsequent biblical citation are from the New American Standard Version). In the psychological research some conceptualizations of fear correspond with this biblical view. Studies are reviewed which examine the relationship of anxiety to positive psychological functioning, specifically, self-actualization.

Finally, a fifth factor that is related to self-actualization in the psychological literature is religious participation, a concept that has obvious relevance to religious devotions as it is represented in Scripture.

These five issues and their relationship to self-actualization, as it is represented in the research literature, will be the focus of this paper. The nature of self-actualization in its psychological context is now examined.

Review of the Literature

Having articulated the conceptualizations of optimal human functioning held by psychology and those that correspond to a biblical framework, this paper now reviews the literature which has related the two. Each area is examined individually in its relationship to self-actualization.

Moral Development

The ability to make moral decisions and to make them from an internal motive is considered a sign of maturity from a biblical perspective, where the believer is called to a life of righteousness and moral purity (Lev. 11:45). God's people are to be motivated internally toward God and His principles (Matt. 6:33). Christ warns against "practicing one's righteousness before men," implying that the true goodness that God desires is a goodness that proceeds from the internal values of the person rather than from external pressure or consequence (Matt. 6:1). The true goodness of the Christian is seen in a pure heart from which righteous, i.e., moral decisions flow.

Much theoretical work is done in the field of psychology in examining the relationship of the developmental level of an individual to his/her level of moral development. One such work, Kohlberg (1976) proposes a model of moral development which parallels Piaget's cognitive developmental schema. In Kohlberg's theory, moral behavior develops through stages from externally controlled behavior toward internally controlled, intrinsic motivation. This latter stage is considered the apex of moral development and is psychologically reflective of mature, adult, optimal development.

Simpson (1976) is one of the first to hypothesize a relationship between the ability to make principled moral judgments

and the degree of self-actualization of the individual. Simpson asserts that moral development involves the progressive integration of the identity of the person, comparing Kohlberg's theory of moral development with Maslow's hierarchy of needs, therefore viewing an increase in internalized moral behavior as parallel to movement toward higher level needs.

Basing their hypothesis on Simpson's assertion, Lucas and Tsujimoto (1978) attempt to demonstrate the relationship of self-actualization to moral judgment based on internal principles. In their study, 50 high school students were given the POI and Rest's Defining Issues Test which measures the relative importance of various moral considerations. Combining the scores on the two major scales of the POI, a significant correlation between the POI and the Defining Issues Test ($r = .24, p < .05$) emerged.

Also combining the two major POI scales, forty-five seminary students were grouped into categories of Low, Moderate, and High actualizers by Lindskoog and Kirk (1975). The subjects were given a structured interview which included questions regarding the personal histories of the subjects, internal and external control, religious issues and moral development. Each student received, as part of the interview, a three judge mean rating on overall moral development.

Lindskoog and Kirk found no significant correlation between self-actualization and moral development. However, their failure to adequately operationalize the definition of moral development as well as the absence of reported attempts to assure interrater

reliability between judges of moral behavior probably contributed to their inconclusive results.

In a more rigorous study, Gruver (1975) confirms the results of Lindskoog and Kirk by administering the POI and Kohlberg's Test of Moral Development to 59 college students. His findings indicate no significant relationship (with results averaged over the 12 scales, $r = .16$ and a maximum obtained $r = .30$) between POI self-actualization and moral integrity as defined by Kohlberg's test.

In the three studies examining moral development and self-actualization little evidence of a relationship between them exists. The correlation found in Lucas and Tsujimoto (1978), while significant, is very small, accounting for only 6% of the variance, with the remaining two studies finding no relationship at all. While there seems to be a conceptual connection between moral integrity and self-actualization as defined by the POI, this relationship is not supported by the research.

Attitude Toward Death

The Bible teaches that the Christian can have a positive attitude toward death (hope), for biblical revelation portrays it as being a passage into a different spiritual existence rather than the end of life (Phil. 1:21-23). The Christian's positive attitude toward death is grounded in plans for eternal life with God (John 3:16). Attitude toward death and its relationship to

self-actualization as it is represented in the psychological literature is now examined.

Wesch (1970) gave 90 undergraduate psychology majors the POI and Templer's Death Anxiety Scale, finding fear of death to correlate negatively with self-actualization on all 12 subscales of the POI, ten of which were significant at the .01 or .05 levels (Tc, $r = -.25^{**}$; Id, $r = -.30^{**}$; SaV, $r = -.28^{**}$; E, $r = -.21^{*}$; Fr, $r = -.15$; Sp, $r = -.33^{**}$; Sr, $r = -.38^{**}$; Sa, $r = -.21^{*}$; Nm, $r = -.16$; Sy, $r = -.24^{*}$; Ci, $r = -.22^{*}$; (* $p < .05$, ** $p < .01$)).

Using 35 undergraduate nursing students, Vargo and Bastel (1981) also assessed self-actualization and fear of death with the POI and the Templer Death Anxiety Scale. However, though their results show strong correlations, a significant negative relationship is only evident on three of the 13 scales of the POI (Tc, $r = -.378$, $p = .05$; Nm, $r = -.538$, $p = .01$; Sa, $r = -.847$, $p = .001$). These results seem somewhat puzzling in light of Wesch's findings, for while the number of subscales upon which significance was found in Vargo and Bastel's study is much smaller than in Wesch, the size of the correlations appears much larger, with one value ($-.847$) being so extreme as to seem anomolous. While one relevant factor could be the larger correlational values required for significance in studies with fewer subjects, Vargo and Bastel explain the difference, in both degree and number of correlations, as due to the different samples tested, an hypothesis that seems inadequate to fully explain correlational values of two to three

times the size found in comparable studies.

Despite the fact that a relationship was found on only three scales, Vargo and Bastel maintain that their findings indicate that a relationship between fear of death and self-actualization exists. The POI manual does not specify the theoretical or empirical significance of subscale scores to the overall level of self-actualization, representing them more as facets or aspects of the construct. Hence, it can be concluded that according to the POI, Vargo and Bastel show that fear of death is correlated with at least some aspects of self-actualization.

Lester and Colvin (1977) found a more convincing relationship between self-actualization and the fear of death. Their results showed a significant negative correlation between The Collett-Lester Fear of Death Scale (Collett and Lester, 1969) and the POI in 26 college students. Of the 48 resulting correlations between the 12 POI scales and the four questionnaire scales, twenty were significant at the .001 level. Of the twenty, 19 were negative, indicating a negative relationship between fear of death and self-actualization. The one positive correlation would appear to be a chance result.

Pollak (1978) administered the POI, the Templer Death Anxiety Scale (DAS), and the Lazare-Klerman Trait Scales to 114 graduate level students, finding that fear of death correlated with only one of the scales of the POI, Time Competence ($r = -.25$, $p < .05$). The source of the different results presented by Lester and

Colvin (1977) and Pollak (1978) is unclear. An obvious difference between the studies is the instrument which was used to assess fear of death.

Robinson and Wood (1984) clarify this issue somewhat by using both of the instruments. Using the Collett-Lester Fear of Death Scale used by Lester and Colvin (1977) and the DAS used in Pollak (1978), Robinson and Wood showed a significant negative correlation between self-actualization and fear of death. Those subjects who were rated high on self-actualization reflected a significantly lower score on the DAS ($p < .01$), and on three of the four scales of the Collett-Lester ($p < .01$). These results seem to support the findings of Lester and Colvin (1977) that a lower fear of death is associated with a more fulfilled and satisfied view of life. However, Robinson and Wood assessed self-actualization not with the POI but with the Threat Index, an instrument which measures perceived attainment of personal ideals, an issue which would seem to have an obvious relationship to attitude toward death.

Gamble and Brown (1980) judged that many of the earlier approaches to assessment of attitude toward death were too narrow, and attempted to understand it on a broader scale. More specifically, they criticized the earlier literature at the point of its definitions of death and dying which are often left vague and undefined. In addition, they pointed out, terms like death and dying imply a negative connotation which may influence subject responses. By using the term "dying to completion" Gamble and Brown

concluded that they could both be unambiguous as to the nature of the experience they were studying and also eliminate many of the negative connotations of death language from their terminology.

Twenty subjects matched for age, sex, race, and education were divided into two groups: an inauthentic unactualized group, and an authentic actualized group. The former were all patients at a state mental institution, and the latter were chosen on the basis of their superior lifestyle and achievements of recognition.

As a measure of attitude toward death, the subjects were given the opportunity, through fantasy, to experience themselves as growing progressively older, culminating, if they wished, in a fantasy death experience. The subjects' reactions to the fantasy and ability to progress in it were scored by the experimenter. While those subjects who appeared agitated or disturbed were allowed to terminate the procedure.

Gamble and Brown's results indicate a significant difference ($p < 0.01$) between the ability of the actualized subjects and the unactualized subjects to progress into the fantasized death experience, results which replicate an earlier study (Gamble, 1974) in which a similar fantasy death experience was related to self-actualization.

Gamble and Brown attribute the difference in attitude toward death that appeared in the subjects to the degree of actualization of the subjects, a causal inference which seems inappropriate. The presence of a correlation between self-actualization and attitude

toward death does not warrant the assumption that self-actualization causes the ability to face death. Also, since the unactualized group was an inpatient population, the results could be due to some other dimension besides self-actualization; e.g. the myriad of factors which can differ between an inpatient and a normal group. Hence, the results may be due to some extraneous third variable.

Except for the limited results found in Vargo and Bastel (1980) and Pollak (1978), the research supports strongly the negative relationship between self-actualization and fear of death. Most studies have operationalized fear of death using Templer's or Collett-Lester's questionnaire. Gamble and Brown (1980), though methodologically flawed, approached the operationalization of fear of death in a unique and creative way, using a guided death fantasy. An outcome common to each study is a significant correlation between attitude toward death and the Time Competence scale of the POI, a scale which addresses issues of ability to live in the present and yet orient oneself to the future. It is probable that this specific factor of self-actualization relates heavily to attitudes toward death.

Relationships with God and Others

A major aspect of the Christian religion as it is articulated in the Bible is its emphasis on positive interpersonal relationships. The Christian is called to love God (Deut. 6:5). However, this injunction applies also to relating positively to other

men (Matt. 22: 37-39). According to the Bible, a relationship should involve honesty, openness and unselfish love (Jam. 5:16, 1 Peter 2:1, Eph. 4:32, John 3:16-17).

In the psychological literature, the relationship of unselfish love to self-actualization was studied by Gelbond (1979). He conceptualized love from an existential psychological perspective as flowing out of the value of the being of another (B-love). Gelbond administered the POI and a questionnaire which assessed existential unselfish love to 85 college students. Gelbond reports results supporting his hypothesis that individuals moving toward higher levels of self-actualization exhibit higher degrees of B-love, and that self-esteem or self-regard as measured by the POI correlates significantly with the ability to love others. However, Gelbond provides no statistical data to support his claims and no information as to the nature of his B-love questionnaire, making the relevance of his report difficult to determine. Nevertheless, similar results are reported by Pascarella and Pino (1981) who gave the POI and the Intimacy Potential Quotient (IPQ) to 70 undergraduates. Significant positive correlations ($p < .05$) with six of the POI scales were obtained, supporting the relationship of interpersonal intimacy to some aspects of self-actualization.

The relationship of healthy psychological functioning to one's relationship with God has also been studied. Using self-esteem instead of self-actualization as their measure of psychological health, Benson and Spilka (1973) hypothesized that

individuals with a higher level of self-esteem would maintain an attitude toward God which was more positive. Based on dissonance theory, they reason that positive attitudes about oneself are incompatible with notions of failure and interpersonal rejection. Consequently, the person with a high level of self-esteem will tend to confirm benevolent and loving aspects of God while disconfirming rejecting and punitive characteristics.

Using an instrument which combines aspects of Coopersmith's (1967) self-esteem scale and a measurement of God-concept, Benson and Spilka assessed 128 male subjects who were matched for religious orientation, religious history, and current religious commitment. A significant ($r = .51$, $p < 0.01$) relationship between self-esteem and God concept was obtained.

Larsen (1979) examined the degree to which self-actualized persons experienced their relationship with God as "a progressive process in which intimacy develops through a succession of encounters" rather than "attempting to 'short cut' foundational experiences in an attempt to achieve immediate intimacy" as was predicted for low actualizers (p. 41). The POI and the Religious Experience Measure (REM) which assesses the frequency, range and pattern of religious experience were administered to 401 undergraduates with results that showed actualized persons tending more than non-actualized persons ($p < .05$) to conceptualize their relationship with God as being a progressive process of relating.

The results of these four studies indicate that

self-actualization and high self-esteem is significantly related to positive factors in relationships, be they with others or with God. A common thread in each study appears to be the degree to which a positive sense of self (especially in the Maslovian sense of self-actualization) positively affects the ability to accept and feel accepted by others. An interesting implication of these results is that since both relationships with God and with others are significantly correlated with a third variable (self-actualization) that they may in fact also be related to each other, i.e. that one's relationship with God is correlated with one's relationships to others.

Anxiety

In much biblical thought, an anxious fear which arises out of a lack of trust in God is viewed as negative (Matt. 6:25-34, 1 Peter 5:7). The fear that is censured in the Bible often involves an inappropriate fear of man and external surroundings resulting from a lack of faith in God. Though psychological theories frequently address the role of anxiety in human functioning, they have varied in their assessment of its value. Many traditional psychological theories view anxiety as a negative quality and the healthy personality as one which is not debilitated by fear. Dabrowski (1972) in his theory of Positive Disintegration, argues for the value of anxiety in the development of personality. He stresses that the disequilibrium fostered by anxiety helps the

individual progress toward higher emotional levels. Higher levels of personal development or self-actualization would not therefore be related to lower levels of anxiety. In an attempt to verify Dabrowski's assertion, de Grace (1974) gave the POI and the IPAT Anxiety Scale to 30 college students, hypothesizing that levels of anxiety would not be significantly different for subjects with different levels of self-actualization. De Grace used only the Inner-directedness and Time Competence scales of the POI, summing the scores on the two major scales and dividing the subjects into an actualized and unactualized group on the basis of the POI scores. His results showed no significant difference between self-actualization and level of anxiety ($p < .01$), finding all subjects to fall into the IPAT category of Neurotic with Mild Anxiety.

These results were challenged by Wilkins, Hjelle, and Thompson (1977) who criticized de Grace (1974) and Dabrowski (1972) for dichotomizing psychological theories into those that value anxiety and those that do not. Wilkins et al., rather, understands most theories as recognizing the value of some degree of anxiety while denigrating what Wilkins et al. terms manifest or pathological anxiety. They therefore examined the relationship of self-actualization and a debilitating, pathological anxiety, recognizing that not all anxiety is negative; but that it often serves a positive purpose in self-preservation and development. They hypothesized that individuals who are self-actualized would

experience a smaller degree of such anxiety than non-actualized persons.

The POI, the IPAT Anxiety Scale and the Manifest Anxiety Scale (MAS) were given to 125 college students. Wilkins et al. combined the scores on the two scales of the POI and formed two groups of subjects consisting of those with the twenty highest and twenty lowest scores. POI scores were correlated with the two anxiety measures yielding identical negative correlations of $-.41$ ($p < .001$).

Dodez, Zelhart, and Markley (1982) found fault with the results of Wilkins et al. by criticizing the construct validity of the POI, asserting that though the theoretical concept of self-actualization sanctions the role of anxiety, the POI is biased against it, ruling responses that indicate anxiety as contra-indicative of self-actualization. In order to test their hypothesis, Dodez et al. removed all anxiety related items from the POI and correlated the scores of 112 undergraduates on the Non-Anxiety POI (NAPOI), the MAS and the IPAT Anxiety Scale. The results reflect a positive correlation between the POI and the NAPOI which Dodez et al. argue demonstrates that the removal of the anxiety loaded items did not fundamentally alter the focus of the test ($r = .6530$, $p = .005$); a positive correlation between the anxiety measures and the NAPOI for the actualized subjects ($r = .6098$ (MAS), $r = .6262$ (IPAT), $p = .005$); a non-significant correlation between the anxiety measures and the NAPOI for the low

actualized subjects ($r = .1279$ (TMAS), $r = .1399$ (IPAT), $p = .005$).

The results of Dodez et al. (1982) support the theoretical position of Dabrowski (1972) and offer a substantial challenge to the results of Wilkins et al. (1977), suggesting that as measured by the POI, self-actualization does not negatively correlate with anxiety. However, Tansey (1976) found results supporting Wilkins et al. in a study of anxiety and ego-strength. Using an instrument which combined items from the Manifest Anxiety Scale, the Barron Ego-strength Scale, and the Sacks Religious Commitment Inventory, Tansey measured the relationship between manifest anxiety and ego-strength in 168 volunteer subjects. Tansey found a significant negative relationship ($r = -.658$, $p < .001$) between ego-strength and level of anxiety, results which support Wilkins et al. A possible resolution of the conflicting results of this body of research is that offered by Wilkins et al. (1977), who asserts that some forms of anxiety do not significantly relate to self-actualization, yet severely neurotic and pathological forms of anxiety will tend to be negatively related to a measure of psychological health.

Religious Participation

Within Christianity, attendance and participation in religious activities are considered positive trait, reflecting an obedience to God in terms of an involvement in corporate worship and the gathering in fellowship of believers (Hebrews 10:25).

This review of the psychological research on the

relationship of self-actualization and religious participation begins with Lee and Piercy (1974) who administered the POI to 61 students at a major university with a 30 percent rate of church attendance (infrequent attenders), and 40 undergraduates at a Baptist related school with a 60 percent rate of regular attendance (frequent attenders) with regular attendance being defined as attending church at least once a month. The results indicate that there are some differences in self-actualization between frequent and infrequent attenders with infrequent attenders scoring significantly higher ($p < .01$) than frequent attenders on one major POI scale, Inner-directedness, and three subscales: Existentiality, Feeling Reactivity, and Capacity for Intimate Contact. All other correlations were insignificant.

Lee and Piercy (1974) interpret the differences in scores to be indicative of the degree to which traits associated with self-actualization are related to concepts of personal independence, a characteristic which would tend to act against tendencies to relate in a group. Indeed, three of the four scales that were elevated: Inner-directedness, Existentiality, Feeling Reactivity correspond directly to issues of personal independence.

Hjelle (1975) predicted that a higher degree of religious participation would be correlated with lower self-actualization. He administered the POI and a questionnaire related to frequency of church attendance to 63 male freshmen at a coeducational Catholic college. Hjelle found a significant negative relationship ($p < .01$

or .05) between self-actualization and frequency of attendance on one of the major scales (Inner-directedness) and eight of the subscales: SaV, Ex, Fr, Sp, Sr, Sa, Aa, and Ci. Like Lee and Piercy (1974), Hjelle's results seem to reflect the personal independence aspects of self-actualization. Most of the scales which showed significant correlations are, as defined by Shostrom (1964), related directly to issues of self-determination and independence. Hjelle interpreted his data to mean that self-actualized individuals interpreted religion participation to have a negative effect on their development and growth. Due to their inner-directed nature, self-actualized people would feel that participation in religious activities would compromise the integrity of their individuality, thus they would tend to avoid such behaviors.

Since the POI is based on self-actualization, a theoretical construct which heavily weights self-direction, it is possibly biased against not just religious participation but any committed group involvement. It is therefore helpful to look at religious participation from a different theoretical perspective as did McClain (1970).

McClain interpreted church attendance from a Freudian perspective. He gave 292 college students the Personal Preference Schedule and the Sixteen Personality Factor Questionnaire in order to collect information about their personality structure. Secondly, he requested information concerning their church attendance with results showing that infrequent attenders displayed personality

characteristics indicative of impulsiveness, indifference to external realities, expediency, antisocial behavior, and absence of guilt. By understanding these traits from a psychoanalytic perspective, McClain argues that nonattendance is associated with rejection of the reality and morality principles and an acceptance of the pleasure principle. One positive trait associated with nonattendance, however, was self-direction, a trait endorsed by Humanistic psychology and heavily weighted on the POI (Inner-directedness, etc.). It appears that since Humanistic psychology focuses to such a large degree on levels of inner-directedness as opposed to exposing oneself to the influence of community, it is biased innately against any form of corporate involvement, not just religious participation. Consequently, religious attendance may correlate negatively with self-actualization, not because it is pathological but because it conflicts with the value system and view of man held by Humanistic psychology and reflected in the POI.

Both Lee and Piercy (1974) and Hjelle (1975) found that infrequent participants in religious group activity scored higher on parts of the POI than did frequent attenders. The scales of the POI which were significant consistently related to issues of personal independence, a trait which is valued by self-actualization as it is defined by the POI. McClain's (1970) study arrived at similar data but interpreted it from the perspective of psychoanalytic theory, whereby he interpreted infrequent attendance as reflecting personal

independence but also as being antisocial and maladaptive. It appears in some ways that the results of the Lee and Piercy (1974) and Hjelle (1975) are distorted by the operationalization of self-actualization by the POI. The POI inappropriately weights personal independence as a determinant of self-actualization. While most Existential and Humanistic theorists: May, Van Kamm, Maslow, Rogers, etc., would value highly group involvement, the POI, in its operationalization of self-actualization, denigrates it.

The high levels of personal independence (and therefore self-actualization) which were found in the studies also may reflect the nature of their populations. Each of the studies reviewed used college students exclusively for their subject pool, individuals for whom, due to their developmental level, heavily value personal independence and autonomy. These results may not, therefore, generalize to a middle age group.

Summary and Conclusion

This paper has sought to review the relevant empirical literature which has examined the nature of the relationship of self-actualization and five dimensions of optimal human functioning which correspond to factors in a biblical view of maturity.

The studies which examined moral development offered little evidence of a relationship between self-actualization and moral behavior. While one of the studies demonstrated a slight significant relationship, two others showed no relationship at all.

In addition, methodological problems in the research contaminated the findings.

The studies reviewed on fear of death suggested a significant correlation between a positive attitude toward death and self-actualization. Though methodological problems limit the results of two studies, the body of research seems to support the existence of a relationship between self-actualization and a positive attitude toward death with a consistently strong relationship being found with the Time-Competence scale of the POI.

While a positive relationship with others was found to be significantly related to self-actualization, there were only two studies available which addressed the issue, thereby limiting the confidence which can be placed in the results. Self-actualized individuals were also found to have a more positive view of God as well as conceptualizing their relationship with him as a growth oriented process toward intimacy. However, the paucity of studies published in this area also limits the conclusions which can be made.

Mixed results were found in the studies examining self-actualization and anxiety with findings supporting either the value of anxiety in personal development or its incompatibility with actualization. Based on the distinction in Wilkins et al. (1977) between normal and pathological or debilitating anxiety, I believe the conclusion can be made that while self-actualization is not related to levels of normal anxiety it is negatively related to

pathological levels of anxiety. This assessment is compatible with the findings of Spence, Taylor, and Ketchel (1956) and the Yerkes-Dodson law (Broadhurst, 1957) that behavior is optimally performed in the context of an optimal level of anxiety.

Finally, the studies that examined the relationship between religious participation and self-actualization found that college students who attended church infrequently tended to have higher levels of self-actualization. However, as noted by Lee and Piercy (1974), the infrequent attenders typically scored higher on the dimensions of the POI that measure personal independence, while the scores of frequent and infrequent attenders on other dimensions of the POI were not significantly different. These findings suggest that infrequent attenders were measured as more actualized on the POI because of their higher levels of independence, relating to a probable avoidance not only religious groups but committed group involvement in general. In addition, the higher emphasis on personal independence could be seen as a function of the developmental level of the adolescent subject pool, limiting the generalizability of the findings to non-adolescent populations..

Overall, the degree of correspondence which was found between self-actualization and dimensions which were determined to represent a biblical view of functioning is mixed. While showing a clear relationship in some areas, no relationship or results opposite to those expected were found in others. This lack of correspondence can be due to several factors: It is possible that

an inaccurate understanding of optimal functioning is held by one or both of the disciplines. Were this the case, a correspondence between them would be unlikely. Another possible factor is the nature of the operationalizations of the constructs studied. As discussed earlier, both self-actualization and the biblical concepts were represented in the research by operationalizations which possibly contain distortions of the concepts they represent. In the case of self-actualization, the POI represented self-actualized functioning. Though adequate support is found for the validity of the POI (Appendix A) the POI has been critisized for inadequately representing self-actualization, e.g. Dodez et al.(1982) focused on its limitations in assessing the role of anxiety in actualization.

In the case of the biblical concepts, operationalization involved understanding abstract concepts in terms of interpersonal, moral, emotional, and religious behavior, a decision which poses limitations in the degree to which the results of this paper can be generalized to aspects of the Christian religion. The summum bonum of Christianity as it is expressed in the Bible, addresses the state of the person's heart, his/her intentions and attitudes, and not exclusively behaviors. For example, religious participation is encouraged in the Bible, but the Bible also warns against maintaining a religion that is manifested simply in external behaviors such as church attendance or moral behavior (Is. 29:13, Matt. 23:5). For the Christian religion, the behaviors that have been discussed in this review represent optimal functioning to the

degree to which they represent the state of the person's internal intentions. Many of the characteristics that are optimally valued by Christianity are intangible (i.e. faith, hope, love). Therefore, what has been discussed in this paper is the relationship between self-actualization and behaviors which represent aspects of optimal human functioning as described in the Bible.

This review has searched the literature for studies evaluating self-actualization and concepts that can be considered biblical. In this sense, the "biblical" concepts reviewed were often not considered so by many of the researchers. For example, the studies performed on anxiety or interpersonal functioning did not understand these concepts as necessarily being "biblical", though they indeed parallel biblical ideas. Future research might take concepts that are known to be biblical and address their relationship to self-actualization, for example, the relationship of self-actualization to forgiveness. In doing this the goal of the present paper, to address the relationship between biblical and psychological views of human functioning, would be furthered.

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Appendix
Validity and Reliability of the
Personal Orientation Inventory

In examining the validity of the POI, Shostrom (1964) reports test-retest reliability coefficients of .91 and .93 in two studies. He also found that the test could discriminate accurately between individuals independently rated as being self-actualized, normal, or non-self-actualized. Hyman (1979) in an extensive review of the research on the construct validity of the POI argues for the test as a valid measure of self-actualization. Based on the research from 1963 to 1979, Hyman found the Inner-directedness scale of the POI to be especially sensitive in measuring self-actualization, particularly in addressing issues of self-determination versus conformity to the standards of others. Though not as strong as the Inner-directedness scale, the Time Competence scale was also found to be a valid measure of time orientation issues related to self-actualization.

A challenge to the construct validity of the POI is offered by Leak (1984). In a response to Tosi and Lindamood's (1975) criticism that studies addressing the validity of the POI neglected to relate it to any specific characteristics of self-actualization, Leak correlated scores on the POI with scores on instruments which measured specific attributes of self-actualization. Leak found that 20 of the 25 correlations were positive, yet only 11 were

significantly so, suggesting that though the POI addresses many of the major characteristics of self-actualization, it is not a wholly accurate operationalization of the construct.

Despite this criticism of the construct validity of the POI, many studies continue to find it valid in discriminating between groups. Dosamantes-Alperson and Merrill (1980) found the POI discriminated between a therapy group and a normal control group along the dimension of self-actualization. Individuals who had participated in group therapy were significantly higher than the normal control group on both scales of the POI. Murphy, Dewolfe, and Mozdierz (1984) successfully ranked normals, alcoholics, reactive schizophrenics, and process schizophrenics according to self-actualization using the POI. The concurrent validity of the POI was supported by Osborne and Steeves (1981) who found that both scales of the POI correlated significantly with lower levels of neurotism as measured by the Eysenck Personality Inventory, Form A.

The internal consistency and test-retest reliability of the two major scales of the POI were addressed by Martin, Blair, Rudolph, and Melman (1981) who found the Time Competence and Inner-directedness scales to have reliabilities of .71 and .77 respectively. In an analysis that correlated all of the 12 scales with each other, Martin et al. found fifty-four of the sixty six correlations to be significant ($p < .001$), supporting the internal consistency of the test.

The research since Hymen (1979) recognises some deficiencies in the POI in terms of its representation of self-actualization, deficiencies which were make evident in this literature review by studies such as Dodez et al. (1982). Despite these limitations, the POI has been demonstrated to be a reasonably accurate measure of self-actualization. In addition, many of the deficiencies of the POI have been resolved in the Personal Orientation Dimensions (POD) (Shostrom 1975), a modification and extension of the POI.